OBSERVATIONS & RECOMMENDATIONS

After reviewing data collected from **WEBSTER LAKE** the program coordinators recommend the following actions.

FIGURE INTERPRETATION

- Figure 1: These graphs illustrate concentrations of chlorophyll-a in the water column. Algae are microscopic plants that are a natural part of lake ecosystems. Algae contain chlorophyll-a, a pigment necessary for photosynthesis. A measure of chlorophyll-a can indicate the abundance of algae in a lake. The historical data (the bottom graph) show a *fairly stable* in-lake chlorophyll-a trend. Chlorophyll concentrations have been improving since 1998 to levels normally seen at the lake. Only one sample was taken this season, and it was well below the New Hampshire mean reference line. The blue-green alga *Anabaena* was the third most abundant algae in the plankton sample. Blue-greens can be indicators of pollutants and can also become a nuisance when in abundance. While algae are present in all lakes, an excess amount of any type is not welcomed. Concentrations can increase when there are internal and external sources of phosphorus, which is the nutrient algae depend upon for growth. It's important to continue the education process and keep residents aware of the sources of phosphorus and how it influences lake quality.

- Figure 2: Water clarity is measured by using a Secchi disk. Clarity, or transparency, can be influenced by such things as algae, sediments from erosion, and natural colors of the water. The graphs on this page show historical and current year data. The lower graph shows a *slightly improving* trend in lake transparency since 1996. Water clarity remained high this season, and was even slightly higher than in 1999. Algal abundance was low, which helped to improve transparency in the lake. The transparency reading remained above the New Hampshire mean reference line. The 2000 sampling season was considered to be wet and, therefore, average transparency readings are expected to be slightly lower than last year's readings. Higher amounts of rainfall usually cause more eroding of sediments into the lake and streams, thus decreasing clarity.

- Figure 3: These figures show the amounts of phosphorus in the epilimnion (the upper layer in the lake) and the hypolimnion (the

lower layer); the inset graphs show current year data. Phosphorus is the limiting nutrient for plants and algae in New Hampshire waters. Too much phosphorus in a lake can lead to increases in plant growth over time. These graphs show a *slightly improving* trend in the upper water layer and a *fairly stable* trend in the lower water layer. The epilimnetic concentration was below the state median, while the hypolimnetic concentration was well above the median. Hypolimnetic phosphorus concentrations were extremely high in August. The combination of the depleted dissolved oxygen and the turbidity of the sample led to this result. Bottom sediment in the sample can lead to elevated phosphorus readings, due to phosphorus binding to the sediment particles. Depletion of dissolved oxygen is common in Webster Lake, which can lead to an internal source of phosphorus to the lake. The phosphorus concentration in the epilimnion in August was slightly higher than normal and probably caused by an increase in nutrient runoff into the lake with the return of wet weather this season. One of the most important approaches to reducing phosphorus levels is educating the public. Humans introduce phosphorus to lakes by several means: fertilizing lawns, septic system failures, and detergents containing phosphates are just a few. Keeping the public aware of ways to reduce the input of phosphorus to lakes means less productivity in the lake. Contact the VLAP coordinator for tips on educating your lake residents or for ideas on testing your watershed for phosphorus inputs.

OTHER COMMENTS

- The monitor of Webster Lake, Bill Cain indicated his preference to step down this year. We will be sorry to see him leave after years of monitoring the lake together. We ask that the association find a replacement for next year's sampling season. We are willing to train new volunteers, with the possible help of the previous monitor. Contact the VLAP coordinator this spring to discuss a training session for the new monitor(s). Also, we would like to see the association conduct more than one sampling event next year. More data lead to a fuller picture of how the lake changes over the summer, and will lead to a better understanding of what may be causing those changes.

- Conductivity levels were slightly elevated this year at most Webster Lake sampling sites (Table 6), although generally the levels remain low. The increase in rain this summer likely caused pollutants to wash into the waters. Conductivity increases often indicate the influence of human activities on surface waters. Septic system leachate, agricultural runoff, iron deposits, and road runoff can all influence conductivity. It would be useful to uncover the reasons for increased conductivity as we continue to monitor the lake.

- **Please note** this summer the phosphorus concentration at Adams Bk was found to be less than 5 µg/L. The NHDES Laboratory Services

adopted a new limit for reporting total phosphorus this year and the lowest value recorded is 'less than 5 µg/L'. We would like to remind the association that a reading of 5 µg/L is considered low for New Hampshire's waters. The average phosphorus concentration at Adams Bk remains stable.

- Dyers Crossing had the lowest total phosphorus concentration since joining VLAP (Table 8). With only one sample collected this summer, the decrease is promising for the health of this site. We will continue to observe the phosphorus concentration at this site.

- Dissolved oxygen was very low again at the bottom 4 meters of the lake (Table 9). The process of decomposition in the sediments depletes dissolved oxygen on the bottom of thermally stratified lakes. As bacteria break down organic matter, they deplete oxygen in the water. When oxygen gets below 1 mg/L, phosphorus normally bound up in the sediments may be released into the water column, a process that is referred to as *internal loading*. Depleted oxygen in the hypolimnion usually occurs as the summer progresses. This explains the higher phosphorus in the hypolimnion (lower water layer) versus the epilimnion (upper layer). Since an internal source of phosphorus to the lake is present, limiting or eliminating external phosphorus sources in the lake's watershed is even more important for lake protection.

NOTES

- Biologist's Note (8/30/00): Internal loading of hypolimnion.

USEFUL RESOURCES

Road Salt and Water Quality, WD-WSQB-7, NHDES Fact Sheet, (603) 271-3503 or www.state.nh.us

Through the Looking Glass: A Field Guide to Aquatic Plants. North American Lake Management Society, 1988. (608) 233-2836 or www.nalms.org

The Blue Green Algae. North American Lake Management Society, 1989. (608) 233-2836 or www.nalms.org

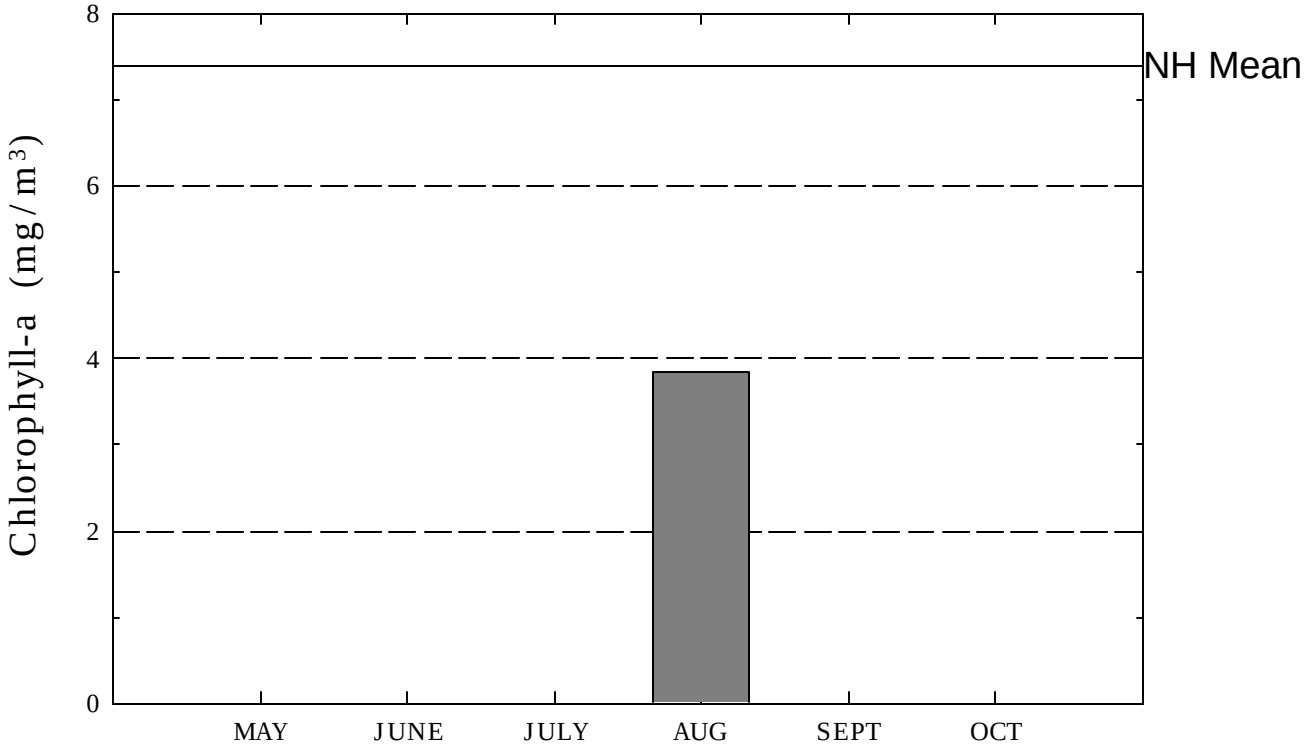
Vegetated Phosphorus Buffer Strips, NH Lakes Association pamphlet, (603) 226-0299 or www.nhlakes.org

Answers to Common Lake Questions, NHDES-WSPCD-92-12, NHDES Booklet, (603) 271-3503.

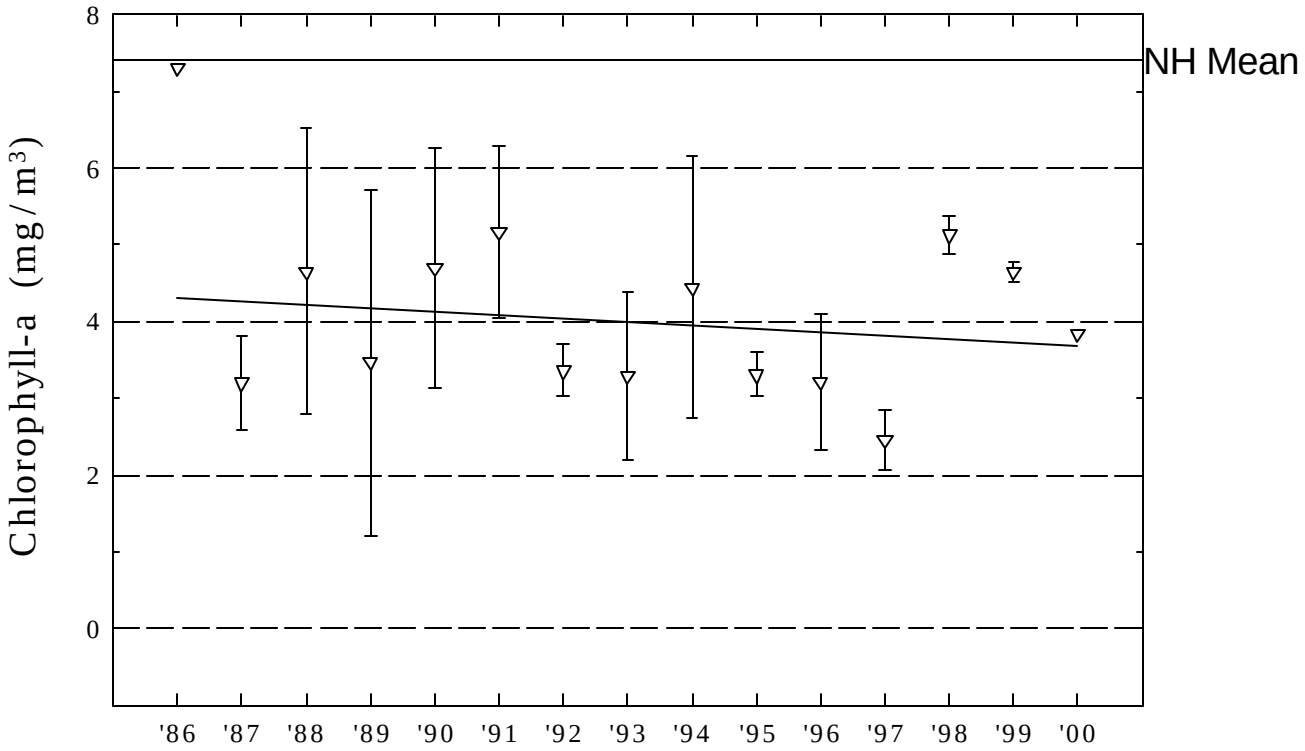
Anthropogenic Phosphorus and New Hampshire Waterbodies, NHDES-WSPCD-95-6, NHDES Booklet, (603) 271-3503

Webster Lake

Figure 1. Monthly and Historical Chlorophyll-a Results



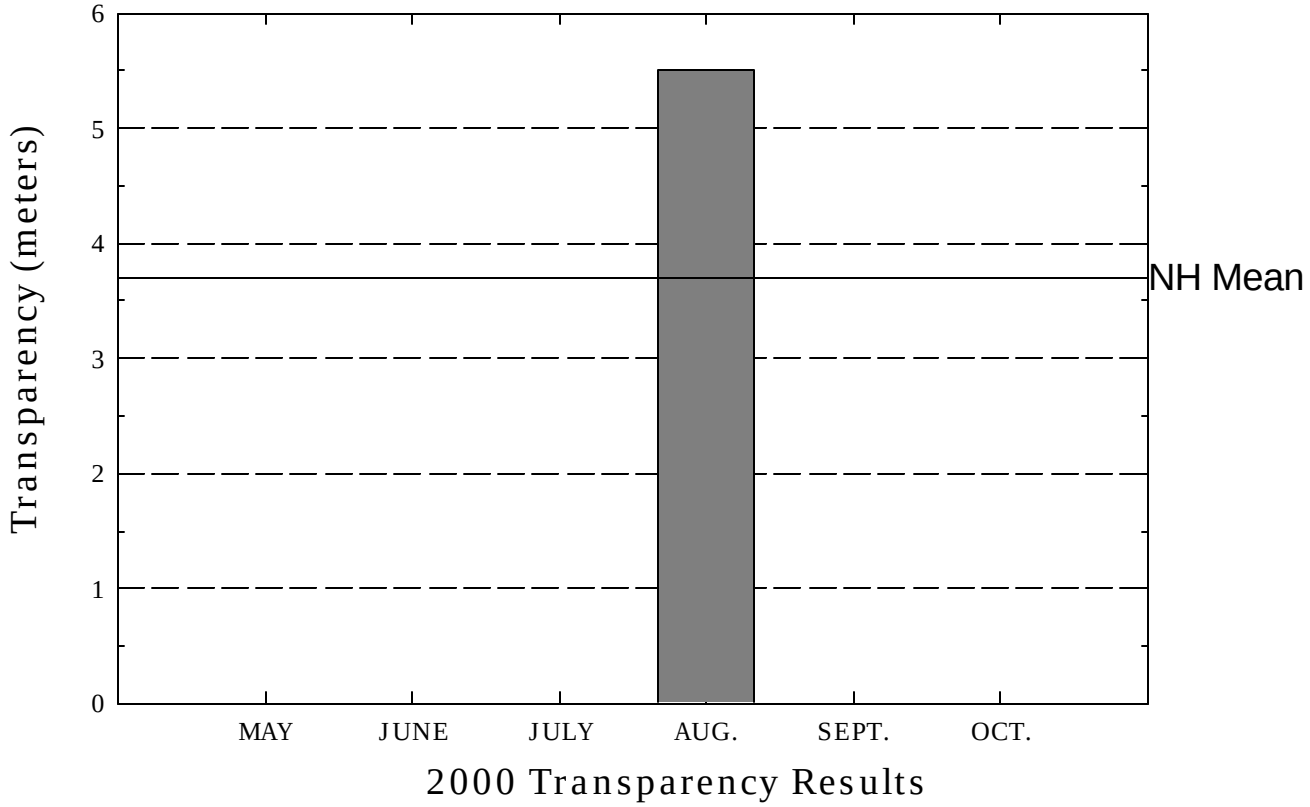
2000 Chlorophyll-a Results

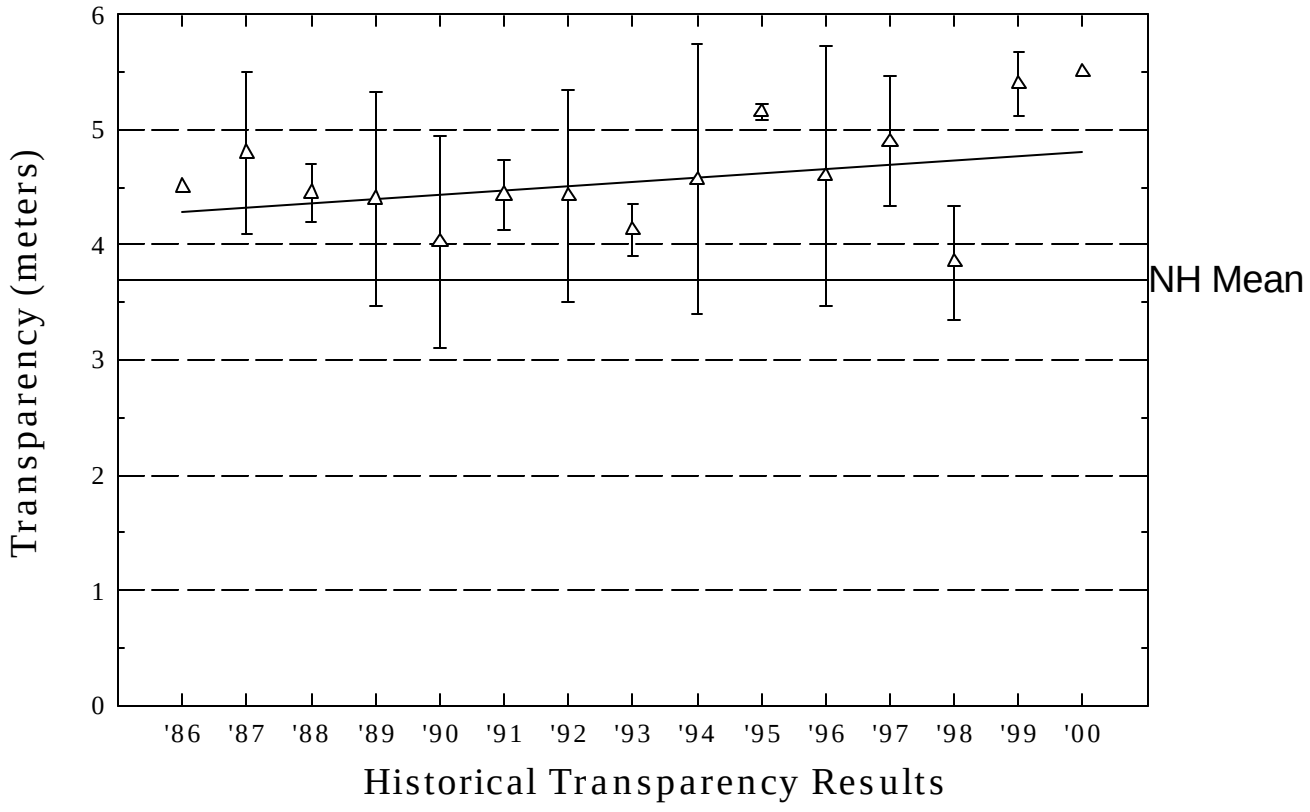


Historical Chlorophyll-a Results

Webster Lake

Figure 2. Monthly and Historical Transparency Results





Webster Lake

Figure 3. Monthly and Historical Total Phosphorus Data.

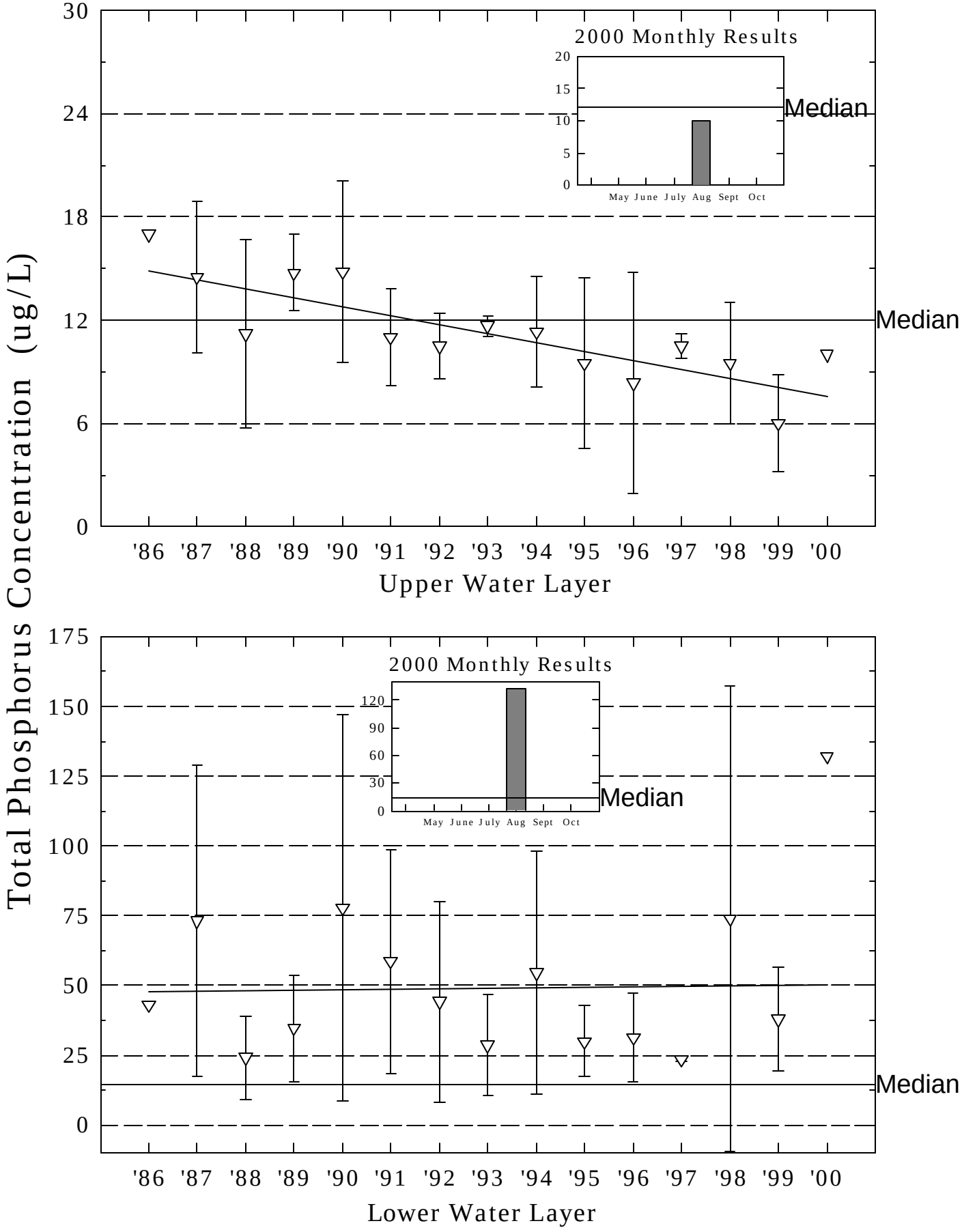


Table 1.

WEBSTER LAKE

FRANKLIN

Chlorophyll-a results (mg/m^3) for current year and historical sampling periods.

Year	Minimum	Maximum	Mean
1986	7.30	7.30	7.30
1987	2.68	4.02	3.20
1988	2.47	6.53	4.65
1989	1.83	6.76	3.47
1990	2.94	7.05	4.70
1991	4.20	6.40	5.17
1992	2.92	3.65	3.36
1993	2.56	4.55	3.14
1994	3.27	6.40	4.44
1995	3.11	3.51	3.31
1996	2.22	3.89	3.21
1997	2.18	2.73	2.45
1998	4.96	5.31	5.13
1999	4.55	4.74	4.64
2000	3.84	3.84	3.84

Table 2.

WEBSTER LAKE

FRANKLIN

Phytoplankton species and relative percent abundance.

Summary for current and historical sampling seasons.

Date of Sample	Species Observed	Relative % Abundance
09 / 06 / 1986	CERATIUM	25
	DINOBRYON	20
	CHRYSOSPHAERELLA	18
06 / 16 / 1987	DINOBRYON	36
	TABELLARIA	26
	ASTERIONELLA	25
07 / 25 / 1988	TABELLARIA	88
08 / 10 / 1989	CERATIUM	56
	TABELLARIA	
05 / 23 / 1990	DINOBRYON	47
	ASTERIONELLA	19
	RHIZOSOLENIA	16
08 / 08 / 1991	OSCILLATORIA	52
	CHRYSOSPHAERELLA	24
	ASTERIONELLA	9
08 / 20 / 1992	OSCILLATORIA	30
	CERATIUM	23
	ANABAENA	13
07 / 02 / 1993	TABELLARIA	37
	ANABAENA	33
07 / 27 / 1993	MICROCYSTIS	28
	MELOSIRA	20
08 / 02 / 1994	CERATIUM	53
	TABELLARIA	28
08 / 02 / 1995	TABELLARIA	59
	CHRYSOSPHAERELLA	24
	SYNURA	4

Table 2.

WEBSTER LAKE

FRANKLIN

Phytoplankton species and relative percent abundance.

Summary for current and historical sampling seasons.

Date of Sample	Species Observed	Relative % Abundance
08 / 20 / 1996	TABELLARIA	73
	ASTERIONELLA	7
	ANABAENA	5
07 / 17 / 1997	ANABAENA	43
	CERATIUM	23
	DINOBRYON	14
07 / 30 / 1998	TABELLARIA	91
	ASTERIONELLA	8
	ANABAENA	1
07 / 21 / 1999	TABELLARIA	55
	CERATIUM	18
	DINOBRYON	8
08 / 30 / 2000	CERATIUM	47
	MALLOMONAS	16
	ANABAENA	14

Table 3.

WEBSTER LAKE

FRANKLIN

Summary of current and historical Secchi Disk transparency results (in meters).

Year	Minimum	Maximum	Mean
1986	4.5	4.5	4.5
1987	4.3	5.6	4.8
1988	4.1	4.7	4.4
1989	3.5	5.7	4.4
1990	3.0	5.2	4.0
1991	3.8	4.7	4.2
1992	3.4	5.5	4.4
1993	4.0	4.9	4.3
1994	3.7	5.9	4.5
1995	5.1	5.2	5.1
1996	3.9	5.9	4.6
1997	4.5	5.3	4.9
1998	3.5	4.2	3.8
1999	5.2	5.6	5.4
2000	5.5	5.5	5.5

Table 4.

WEBSTER LAKE

FRANKLIN

pH summary for current and historical sampling seasons.
Values in units, listed by station and year.

Station	Year	Minimum	Maximum	Mean
ADAMS BK				
	1987	6.51	6.56	6.53
	1988	6.33	7.08	6.64
	1989	6.52	6.64	6.57
	1990	6.42	6.85	6.56
	1991	6.50	6.60	6.54
	1992	6.57	6.76	6.68
	1993	6.55	6.62	6.58
	1994	6.51	6.68	6.62
	1995	6.03	6.81	6.26
	1996	6.20	6.38	6.30
	1997	6.42	6.63	6.51
	1998	6.23	6.50	6.34
	1999	6.25	6.53	6.37
	2000	6.25	6.25	6.25
DYER COVE SWAMP				
	1987	5.83	5.97	5.90
	1988	6.07	6.26	6.15
DYERS CROSSING				
	1992	7.06	7.26	7.15
	1993	6.92	7.16	7.02
	1994	7.07	7.25	7.15
	1995	7.13	7.13	7.13
	1996	6.29	6.63	6.43
	1997	6.91	6.97	6.94

Table 4.

WEBSTER LAKE

FRANKLIN

pH summary for current and historical sampling seasons.
Values in units, listed by station and year.

Station	Year	Minimum	Maximum	Mean
	1998	7.09	7.23	7.15
	1999	7.02	7.10	7.06
	2000	7.21	7.21	7.21
EPILIMNION				
	1986	6.95	6.95	6.95
	1987	6.67	6.99	6.85
	1988	6.94	7.13	7.03
	1989	6.60	7.16	6.91
	1990	6.82	7.32	6.95
	1991	5.40	7.00	5.86
	1992	6.82	7.13	6.96
	1993	6.80	7.15	6.99
	1994	6.79	7.09	6.95
	1995	6.40	6.60	6.49
	1996	6.18	6.69	6.38
	1997	6.66	6.81	6.73
	1998	6.81	7.15	6.95
	1999	6.66	7.01	6.80
	2000	6.87	6.87	6.87
GAGNES BK				
	1987	6.32	6.45	6.39
	1988	6.32	7.05	6.59
	1989	6.16	7.00	6.39
	1990	6.18	7.02	6.41
	1991	6.42	6.42	6.42
	1992	6.49	7.05	6.63

Table 4.

WEBSTER LAKE

FRANKLIN

pH summary for current and historical sampling seasons.
Values in units, listed by station and year.

Station	Year	Minimum	Maximum	Mean
	1993	6.61	6.61	6.61
	1994	6.49	6.91	6.60
	1995	6.57	6.57	6.57
	1996	6.26	6.43	6.34
	1997	6.45	6.78	6.58
	1998	6.29	6.39	6.34
	1999	6.86	6.86	6.86
HEWETT BK				
	1986	6.33	6.33	6.33
HUNTERS BK				
	1986	6.92	6.92	6.92
	1987	6.50	6.87	6.69
	1988	6.91	6.98	6.94
HYPOLIMNION				
	1986	6.35	6.56	6.44
	1987	6.18	6.43	6.30
	1988	6.38	7.08	6.54
	1989	6.20	6.93	6.52
	1990	6.07	6.62	6.31
	1991	6.24	6.70	6.41
	1992	6.18	7.08	6.45
	1993	6.37	7.05	6.52
	1994	6.44	6.71	6.54
	1995	5.95	6.40	6.12
	1996	6.13	6.30	6.22

Table 4.

WEBSTER LAKE

FRANKLIN

pH summary for current and historical sampling seasons.
Values in units, listed by station and year.

Station	Year	Minimum	Maximum	Mean
	1997	6.26	6.48	6.36
	1998	6.30	6.49	6.38
	1999	6.38	6.55	6.46
	2000	6.60	6.60	6.60
LAKE AVE TRIB				
	1988	6.70	6.90	6.79
	1989	6.05	6.36	6.21
	1990	5.86	6.69	6.11
	1991	6.33	6.69	6.51
	1992	6.14	6.78	6.35
	1993	6.18	6.61	6.34
	1994	6.17	6.60	6.32
	1995	6.35	6.35	6.35
	1996	6.19	6.26	6.22
	1997	6.19	6.40	6.28
	1998	5.74	6.34	5.94
	1999	6.83	6.83	6.83
METALIMNION				
	1987	6.42	6.75	6.61
	1988	6.34	6.85	6.67
	1989	6.35	7.04	6.57
	1990	6.25	6.84	6.52
	1991	6.40	6.65	6.50
	1992	6.51	7.12	6.66
	1993	6.78	7.17	6.93
	1994	6.26	6.77	6.48

Table 4.

WEBSTER LAKE

FRANKLIN

pH summary for current and historical sampling seasons.
Values in units, listed by station and year.

Station	Year	Minimum	Maximum	Mean
	1995	5.79	6.67	6.04
	1996	6.20	6.31	6.25
	1997	6.45	6.70	6.56
	1998	6.28	6.29	6.28
	1999	6.32	6.55	6.42
	2000	6.43	6.43	6.43
OUTLET				
	1987	6.75	6.89	6.82
	1988	6.75	7.13	6.94
	1989	6.78	7.17	6.96
	1990	6.38	7.08	6.74
	1991	6.61	7.20	6.85
	1992	6.74	7.13	6.92
	1993	6.66	7.00	6.78
	1994	6.96	7.01	6.98
	1995	6.96	7.06	7.01
	1996	6.60	6.92	6.71
	1997	6.72	6.85	6.78
	1998	6.88	7.02	6.94
	1999	6.82	7.08	6.93
	2000	7.06	7.06	7.06
SUCKER BK				
	1986	7.24	7.24	7.24
	1987	6.85	7.21	6.99
	1988	6.83	7.35	7.05
	1989	6.98	7.33	7.14

Table 4.

WEBSTER LAKE

FRANKLIN

pH summary for current and historical sampling seasons.
Values in units, listed by station and year.

Station	Year	Minimum	Maximum	Mean
	1990	6.75	7.46	6.98
	1991	6.90	7.41	7.17
	1992	7.05	7.48	7.24
	1993	7.11	7.46	7.28
	1994	7.15	7.30	7.23
	1995	6.79	6.79	6.79
	1996	6.57	6.83	6.72
	1997	6.95	7.27	7.08
	1998	6.96	7.24	7.08
	1999	6.93	7.22	7.05
	2000	7.17	7.17	7.17

Table 5.

WEBSTER LAKE

FRANKLIN

Summary of current and historical Acid Neutralizing Capacity.
Values expressed in mg/L as CaCO .

Epilimnetic Values

Year	Minimum	Maximum	Mean
1986	6.00	6.00	6.00
1987	6.20	6.20	6.20
1988	6.70	10.60	8.10
1989	5.70	7.80	6.35
1990	5.40	6.40	5.80
1991	3.50	6.90	5.37
1992	5.10	6.80	6.05
1993	5.60	6.60	6.07
1994	6.50	8.10	7.50
1995	6.80	6.90	6.85
1996	5.80	5.90	5.83
1997	6.10	6.20	6.15
1998	4.80	5.40	5.10
1999	5.30	5.80	5.55
2000	6.90	6.90	6.90

Table 6.

WEBSTER LAKE
FRANKLIN

Specific conductance results from current and historic sampling seasons. Results in uMhos/cm.

Station	Year	Minimum	Maximum	Mean
ADAMS BK				
	1987	18.8	30.4	23.1
	1988	19.1	25.6	22.2
	1989	21.3	35.8	25.1
	1990	18.2	34.6	23.0
	1991	21.2	30.2	27.1
	1992	18.9	21.7	20.5
	1993	18.9	33.2	26.0
	1994	17.8	33.8	24.6
	1995	19.5	29.2	24.3
	1996	23.4	37.4	28.7
	1997	21.4	29.5	25.4
	1998	17.4	24.0	20.7
	1999	22.2	34.1	28.1
	2000	28.8	28.8	28.8
DYER COVE SWAMP				
	1987	30.7	33.7	32.4
	1988	29.4	34.7	32.0
DYERS CROSSING				
	1992	34.4	54.4	43.3
	1993	34.2	58.0	46.1
	1994	42.6	51.7	48.6
	1995	38.7	38.7	38.7
	1996	41.8	49.0	45.4
	1997	41.8	50.0	45.9

Table 6.

WEBSTER LAKE
FRANKLIN

Specific conductance results from current and historic sampling seasons. Results in uMhos/cm.

Station	Year	Minimum	Maximum	Mean
	1998	23.8	37.5	30.6
	1999	37.5	47.2	42.3
	2000	56.7	56.7	56.7
EPILIMNION				
	1986	46.5	46.5	46.5
	1987	43.2	45.8	44.2
	1988	43.1	47.3	45.1
	1989	47.5	50.4	48.3
	1990	44.0	47.5	45.4
	1991	43.8	46.7	45.4
	1992	46.2	49.1	47.5
	1993	47.0	51.2	48.8
	1994	47.2	61.9	52.5
	1995	45.2	47.6	46.4
	1996	43.5	45.8	44.4
	1997	42.0	42.2	42.1
	1998	39.1	43.3	41.2
	1999	49.2	51.3	50.2
	2000	51.6	51.6	51.6
GAGNES BK				
	1987	27.6	66.2	40.1
	1988	24.4	55.2	37.0
	1989	25.1	73.1	39.4
	1990	20.5	68.6	38.6
	1991	29.7	29.7	29.7

Table 6.

WEBSTER LAKE
FRANKLIN

Specific conductance results from current and historic sampling seasons. Results in uMhos/cm.

Station	Year	Minimum	Maximum	Mean
	1992	22.6	35.8	30.1
	1993	44.4	44.4	44.4
	1994	37.2	44.9	40.1
	1995	30.8	30.8	30.8
	1996	29.2	33.2	31.2
	1997	27.9	41.9	34.9
	1998	20.1	35.2	27.6
	1999	50.0	50.0	50.0
HEWETT BK				
	1986	35.5	35.5	35.5
HUNTERS BK				
	1986	38.9	38.9	38.9
	1987	32.9	43.0	39.6
	1988	42.6	43.4	43.0
HYPOLIMNION				
	1986	48.5	52.6	50.5
	1987	45.7	63.4	54.4
	1988	43.5	56.4	47.9
	1989	48.7	67.7	55.4
	1990	46.4	71.5	56.9
	1991	43.7	67.4	54.6
	1992	49.1	78.5	58.8
	1993	48.5	59.4	52.7
	1994	52.0	67.3	58.6
	1995	49.2	71.6	60.4

Table 6.

WEBSTER LAKE
FRANKLIN

Specific conductance results from current and historic sampling seasons. Results in uMhos/cm.

Station	Year	Minimum	Maximum	Mean
	1996	44.8	59.5	53.4
	1997	44.6	47.9	46.2
	1998	49.4	61.1	55.2
	1999	53.6	64.5	59.0
	2000	83.7	83.7	83.7
LAKE AVE TRIB				
	1988	26.6	29.9	28.3
	1989	22.9	25.4	24.2
	1990	20.5	26.3	23.2
	1991	22.7	38.9	31.6
	1992	19.6	23.3	21.3
	1993	22.0	32.1	27.0
	1994	24.2	28.1	26.4
	1995	20.8	20.8	20.8
	1996	32.5	39.9	36.2
	1997	21.9	31.2	26.5
	1998	20.6	31.4	26.0
	1999	39.0	39.0	39.0
METALIMNION				
	1987	43.0	46.0	44.6
	1988	43.1	47.5	45.6
	1989	46.5	50.3	48.1
	1990	44.6	45.7	45.3
	1991	42.8	47.4	45.4
	1992	46.6	55.1	49.8

Table 6.

WEBSTER LAKE
FRANKLIN

Specific conductance results from current and historic sampling seasons. Results in uMhos/cm.

Station	Year	Minimum	Maximum	Mean
	1993	46.8	53.9	49.5
	1994	23.6	51.7	41.9
	1995	46.2	54.4	50.3
	1996	42.8	46.1	44.5
	1997	40.6	42.4	41.5
	1998	41.2	44.3	42.7
	1999	48.5	53.1	50.8
	2000	53.1	53.1	53.1
OUTLET				
	1987	44.6	46.5	45.9
	1988	45.3	51.8	49.0
	1989	48.6	54.6	50.9
	1990	45.5	52.5	47.7
	1991	45.2	52.4	49.4
	1992	47.8	51.9	50.1
	1993	49.0	94.4	66.2
	1994	50.0	52.0	50.8
	1995	49.4	49.4	49.4
	1996	47.9	49.1	48.4
	1997	44.3	44.4	44.3
	1998	44.3	46.4	45.3
	1999	52.3	53.1	52.7
	2000	52.9	52.9	52.9
SUCKER BK				
	1986	75.9	75.9	75.9
	1987	58.4	79.9	66.7

Table 6.

WEBSTER LAKE
FRANKLIN

Specific conductance results from current and historic sampling seasons. Results in uMhos/cm.

Station	Year	Minimum	Maximum	Mean
	1988	47.7	81.2	66.2
	1989	51.9	76.0	60.3
	1990	41.7	75.7	56.8
	1991	62.2	85.3	75.8
	1992	48.6	79.7	67.8
	1993	66.5	96.2	84.9
	1994	69.9	82.8	77.2
	1995	62.7	83.1	72.9
	1996	52.3	66.2	59.6
	1997	60.9	62.9	61.9
	1998	47.2	62.5	54.8
	1999	89.1	109.8	99.4
	2000	100.9	100.9	100.9

Table 8.

WEBSTER LAKE

FRANKLIN

Summary historical and current sampling season Total Phosphorus data. Results in ug/L.

Station	Year	Minimum	Maximum	Mean
ADAMS BK				
	1987	7	10	8
	1988	< 1	23	8
	1989	4	9	6
	1990	1	12	6
	1991	5	11	8
	1992	3	17	7
	1993	3	7	5
	1994	5	11	8
	1995	4	7	5
	1996	1	17	8
	1997	5	8	6
	1998	3	5	4
	1999	4	12	8
	2000	< 5	5	5
ASPLUND BK				
	1991	4	4	4
DYER COVE SWAMP				
	1987	23	47	35
	1988	24	24	24
DYERS CROSSING				
	1992	22	61	39
	1993	24	82	53
	1994	45	80	64
	1995	87	87	87

Table 8.

WEBSTER LAKE

FRANKLIN

Summary historical and current sampling season Total Phosphorus data. Results in ug/L.

Station	Year	Minimum	Maximum	Mean
	1996	51	66	58
	1997	68	101	84
	1998	71	75	73
	1999	40	78	59
	2000	21	21	21
EPILIMNION				
	1986	17	17	17
	1987	11	21	14
	1988	4	18	11
	1989	12	17	14
	1990	7	21	14
	1991	9	63	28
	1992	8	12	10
	1993	11	12	11
	1994	9	15	11
	1995	6	13	9
	1996	1	13	8
	1997	10	11	10
	1998	7	12	9
	1999	4	8	6
	2000	10	10	10
GAGNES BK				
	1987	18	71	41
	1988	16	40	26
	1989	15	45	25

Table 8.

WEBSTER LAKE

FRANKLIN

Summary historical and current sampling season Total Phosphorus data. Results in ug/L.

Station	Year	Minimum	Maximum	Mean
	1990	10	59	35
	1991	42	42	42
	1992	15	25	21
	1993	28	28	28
	1994	24	37	31
	1995	20	20	20
	1996	18	23	20
	1997	25	98	61
	1998	14	34	24
	1999	27	27	27
HEWETT BK				
	1986	25	25	25
HUNTERS BK				
	1986	18	18	18
	1987	24	53	41
	1988	4	12	8
HYPOLIMNION				
	1986	11	43	27
	1987	17	150	73
	1988	6	47	24
	1989	16	61	34
	1990	15	183	77
	1991	19	99	58
	1992	8	91	44
	1993	11	47	30

Table 8.

WEBSTER LAKE

FRANKLIN

Summary historical and current sampling season Total Phosphorus data. Results in ug/L.

Station	Year	Minimum	Maximum	Mean
	1994	27	105	54
	1995	21	39	30
	1996	15	47	31
	1997	23	24	23
	1998	15	133	74
	1999	25	51	38
	2000	132	132	132
LAKE AVE TRIB				
	1988	37	55	46
	1989	15	36	26
	1990	8	101	41
	1991	31	84	51
	1992	16	24	20
	1993	22	35	28
	1994	34	45	38
	1995	19	19	19
	1996	62	71	66
	1997	35	37	36
	1998	13	66	39
	1999	40	40	40
METALIMNION				
	1987	10	16	13
	1988	8	16	12
	1989	13	21	17
	1990	14	19	15
	1991	12	25	20

Table 8.

WEBSTER LAKE

FRANKLIN

Summary historical and current sampling season Total Phosphorus data. Results in ug/L.

Station	Year	Minimum	Maximum	Mean
	1992	14	30	18
	1993	11	13	11
	1994	16	20	18
	1995	10	13	11
	1996	4	15	9
	1997	11	14	12
	1998	11	11	11
	1999	7	18	12
	2000	16	16	16
OUTLET				
	1987	7	29	17
	1988	6	15	10
	1989	8	42	17
	1990	6	17	11
	1991	8	12	10
	1992	7	11	8
	1993	9	31	16
	1994	8	8	8
	1995	7	7	7
	1996	1	12	6
	1997	7	9	8
	1998	6	8	7
	1999	4	6	5
	2000	7	7	7

Table 8.

WEBSTER LAKE

FRANKLIN

Summary historical and current sampling season Total Phosphorus data. Results in ug/L.

Station	Year	Minimum	Maximum	Mean
SUCKER BK				
	1986	19	19	19
	1987	17	85	43
	1988	10	21	15
	1989	13	22	18
	1990	8	20	16
	1991	10	28	17
	1992	10	22	16
	1993	11	23	15
	1994	14	31	21
	1995	14	19	16
	1996	6	15	11
	1997	25	26	25
	1998	13	17	15
	1999	17	19	18
	2000	16	16	16

Table 9.

WEBSTER LAKE

FRANKLIN

Current year dissolved oxygen and temperature data.

Depth (meters)	Temperature (celsius)	Dissolved Oxygen (mg/L)	Saturation (%)
		August 30, 2000	
0.1	22.8	7.6	87.8
1.0	22.7	7.5	87.2
2.0	22.6	7.4	86.1
3.0	22.5	7.4	85.9
4.0	22.2	7.1	81.9
5.0	21.6	6.4	72.6
6.0	21.0	4.8	54.3
7.0	20.1	3.3	36.1
8.0	18.7	2.6	27.6
9.0	15.1	0.1	1.4
10.0	13.6	0.2	2.1
10.5	13.4	0.4	3.6

Table 10.

WEBSTER LAKE

FRANKLIN

Historic Hypolimnetic dissolved oxygen and temperature data.

Date	Depth (meters)	Temperature (celsius)	Dissolved Oxygen (mg/L)	Saturation (%)
June 16, 1987	10.0	13.2	2.5	23.0
July 25, 1988	12.5	13.2	0.0	0.0
August 10, 1989	11.5	11.1	1.2	11.0
July 23, 1990	11.0	13.1	0.9	8.6
August 8, 1991	11.5	13.5	0.2	1.9
August 26, 1992	12.0	11.0	0.1	0.9
July 2, 1993	11.0	15.0	1.3	13.0
July 27, 1993	12.5	13.5	0.3	3.0
August 2, 1994	12.5	12.5	0.2	2.0
August 2, 1995	12.0	12.5	0.4	4.0
August 21, 1996	11.0	13.3	0.3	3.0
July 17, 1997	11.0	12.2	0.7	6.0
July 30, 1998	11.0	14.8	0.2	2.0
July 21, 1999	11.0	13.5	0.6	5.4
August 30, 2000	10.5	13.4	0.4	3.6

Table 11.

WEBSTER LAKE

FRANKLIN

Summary of current year and historic turbidity sampling.
Results in NTU's.

Station	Year	Minimum	Maximum	Mean
ADAMS BK				
	1997	0.0	0.0	0.0
	1998	0.2	0.2	0.2
	1999	0.4	0.5	0.4
	2000	1.0	1.0	1.0
DYERS CROSSING				
	1997	1.2	1.3	1.2
	1998	1.3	2.4	1.8
	1999	0.6	6.9	3.7
	2000	0.3	0.3	0.3
EPILIMNION				
	1997	0.3	0.4	0.3
	1998	0.6	0.7	0.7
	1999	0.4	0.4	0.4
	2000	0.3	0.3	0.3
GAGNES BK				
	1997	1.1	1.4	1.3
	1998	0.4	5.9	3.1
	1999	5.3	5.3	5.3
HYPOLIMNION				
	1997	1.8	6.4	4.1
	1998	1.7	6.6	4.1
	1999	6.7	31.0	18.8
	2000	4.8	4.8	4.8
LAKE AVE TRIB				
	1997	1.7	2.0	1.8

Table 11.

WEBSTER LAKE

FRANKLIN

Summary of current year and historic turbidity sampling.
Results in NTU's.

Station	Year	Minimum	Maximum	Mean
	1998	0.6	9.5	5.0
	1999	5.0	5.0	5.0
METALIMNION				
	1997	0.4	0.5	0.4
	1998	0.9	1.4	1.1
	1999	0.7	3.6	2.1
	2000	1.9	1.9	1.9
OUTLET				
	1997	0.2	0.3	0.3
	1998	0.4	0.5	0.4
	1999	0.3	0.4	0.4
	2000	0.3	0.3	0.3
SUCKER BK				
	1997	0.3	0.5	0.4
	1998	0.7	0.8	0.8
	1999	0.6	0.8	0.7
	2000	0.4	0.4	0.4